

## ABSTRACT

The present invention relates to isolated polynucleotides encoding cysteine proteinases; cysteine proteinase inhibitors; and aspartic endoproteinases. The invention also relates to a transformed host cell, preferably a plant cell, in which over- or under-expression of these polynucleotides result in altered levels of coffee flavour precursor levels, specifically, amino group-containing molecules such as amino acids, peptides and proteins, in green coffee grains.